

08/246,113



UNITED STATES DEPARTMENT OF COMMERCE  
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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/246,113	05/19/94	KARAVAKIS	
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LERNER DAVID LITTENBERG	12M1/0928
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ART UNIT	PAPER NUMBER
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1208
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DATE MAILED:	09/28/95
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This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined       Responsive to communication filed on JULY 21 AND SEPT 14/19, 1994.  This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.      | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152.                  |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input type="checkbox"/>  |

Part II SUMMARY OF ACTION

1.  Claims 1-52 are pending in the application.
2.  Claims \_\_\_\_\_ are withdrawn from consideration.
3.  Claims \_\_\_\_\_ have been cancelled.
4.  Claims 1-52 are allowed.
5.  Claims \_\_\_\_\_ are rejected.
6.  Claims \_\_\_\_\_ are objected to.
7.  Claims \_\_\_\_\_ are subject to restriction or election requirement.
8.  This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
9.  Formal drawings are required in response to this Office action.
10.  The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are  acceptable;  not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
11.  The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been  approved by the examiner;  disapproved by the examiner (see explanation).
12.  The proposed drawing correction, filed \_\_\_\_\_, has been  approved;  disapproved (see explanation).
13.  Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has  been received  not been received  been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
14.  Other

EXAMINER'S ACTION

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person...

3. Claims 1-4, 6-10, 17, 18, 20-27, 30-35, 37, 38, 40-45, and 48-52 are rejected under 35 U.S.C. § 102(b) as being anticipated by Khandros et al. 5,148,265.

See Khandros et al. (esp. abstract; Fig. 7; col. 4, line 36-col. 5, line 2; col. 7, line 15-col. 8, line 17; col. 9, line 48-col. 10, line 24; paragraph bridging col's. 10 and 11; col. 14, line 19-col. 15, line 4; and col. 17, lines 21-44). In this rejection, the mold & interposer of Khandros et al. correspond to

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applicants' "encapsulation barrier" and "protective barrier", respectively.

4. Claim 5 is rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Getson 4,913,930.

The especially pertinent portions of Khandros et al. are referred to in the preceding paragraph. While Khandros et al. may not disclose the use of a plural reactive component encapsulation material, it would have been obvious to one skilled in the art at the time applicants' invention was made to use such encapsulation material shown to be old by Getson (col. 3, line 61-col. 5, line 9) in the method of Khandros et al. to take advantage of shorter cure time and low temperatures.

5. Claims 11-15, 35-38, and 46 are rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Moser et al. 4,312,116.

The especially pertinent portions of Khandros et al. are referred to in ¶ 3 above. While Khandros et al. may not disclose the use of an aluminum cap or can, it would have been obvious to one skilled in the art at the time applicants' invention was made to use such Al cap or can shown to old by Moser et al. (col. 2, line 49-col. 3, line 25) in the method of Khandros et al. where an ultimate product packaged in a cap or can is desired.

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6. Claims 16, 19, 39, and 47 are rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Arai et al. 5,304,512.

The especially pertinent portions of Khandros et al. are referred to in ¶ 3 above. While Khandros et al. may not disclose the use of a ring, it would have been obvious to one skilled in the art at the time applicants' invention was made to use a ring shown to be old in the art by Arai et al. (col. 8, lines 53-57) in the method of Khandros et al. where an ultimate product package having this type of support is desired.

7. Claim 28 is rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Condra et al. 5,304,252.

The especially pertinent portions of Khandros et al. are referred to in ¶ 3 above. While Khandros et al. may not disclose the use of an interposer, protective barrier or solder mask which is an epoxy acrylic, it would have been obvious to one skilled in the art at the time applicants' invention was made to use the epoxy acrylic of Condra et al. (paragraph bridging cols. 4, and 5) as the interposer, solder mask, etc. in the method of Khandros et al. to take advantage of the desirable properties of said epoxy acrylic (loc cit).

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8. Claim 29 is rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Eichelberger et al. 4,918,811.

The especially pertinent portions of Khandros et al. are referred to in ¶ 3 above. While Khandros et al. may not disclose the use of vacuum lamination to apply his interposer or shadow mask, it would have been obvious to one skilled in the art at the time applicants' invention was made to use vacuum lamination to apply the "interposer" or shadow mask in the method of Khandros et al. since Eichelberger et al. (col. 7, lines 21-27) disclose said vacuum lamination as one of a number<sup>of</sup> alternatives for applying polymer films.

9. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to provide an enabling disclosure as to "a plurality of mutually reactive materials to form said curable material".

10. Claim 5 is rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

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11. Claims 5, 24, 25, 27-31, and 45-47 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The stated claims are indefinite in lacking antecedent basis in the claim(s) upon which they at least ultimately depend for "the hardening step", "said substantially planar mask", "said solder mask" and "said encapsulation barrier".

12. The drawings are objected to because Fig. 1 lacks numerals 29 and 37 and their lead lines; Fig. 7 lacks numeral 29 and its lead line; Fig. 8 lacks numeral 44 and its lead line; Fig. 9 lacks numerals 16 and 18 and their lead lines; Fig. 10A lacks numerals 10 and 26 and their lead lines; and Fig. 10B lacks numeral 48 and its lead line. Correction is required.

13. The remaining references listed on the attached form PTO-1449 and form PTO-892 are cumulative to the references applied herein, and/or further show the state of the art.

A facsimile center has been established in Group 1200, room 3C10. The hours of operation are monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machine is (703) 308-4556 or 305-3592.

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14. Any inquiry concerning this communication should be directed to Examiner Lovering at telephone number (703) 308-0443.

LOVERING:jd  
SEPTEMBER 25, 1995

*Richard D. Lovering*  
RICHARD D. LOVERING  
PRIMARY EXAMINER  
GROUP 1200